

**ABSTRACT OF THE DISCLOSURE**

A method and apparatus provides the capability for a single function to safely use multiple register  
5 windows within the same function, with minimal additional support from the operating system, by specifying a new window pointer, the "Effective Current Window Pointer" (ECWP), to be used in conjunction with the prior art window pointer. According to the present  
10 invention, the new window pointer ECWP can be used to override the prior art window pointer in dictating from which register window the operands stipulated by the instructions to be executed are sourced/sinked. Consequently, using the method and apparatus of the  
15 invention, the number of spills to memory is reduced, the number of instructions required is decreased, resources are used more efficiently, and costly dependency problems and RAW (read-after-write) stalls are prevented.